Applicant: Antti Heikkinen et al.
Application No.: 10/694,291
Art Unit: 3725

Remarks

Claims 1–4, and 6–9 remain pending in the application. In the Office action dated April 1, 2004, claims 5, 7 and 8 were rejected as indefinite, and claims 1–6 were rejected as obvious over *Fletcher* in view of *Taylor*. Claims 7 and 8 were rejected over *Fletcher* and *Taylor* and further in view of *Veneman et al.*

Claims 7 and 8 use claim language conforming to 35 U.S.C. § 112 ¶ 6 "means for relieving roll loads". The means disclosed are Metso Paper, Inc.'s OptiLoad calender, and the claims include the §112 ¶ 6 equivalents of Metso Paper, Inc.'s OptiLoad calender. Paragraph [0008] discloses " Linear load increases in the multi-roll calender from the top nip to the bottom nip because of the force of gravity. By using the relieving of rolls, this increase in load can be compensated for." It is respectfully submitted that the person of ordinary skill in the art can determine the disclosed means for relieving roll loads from the specification.

Claim 5 has been canceled, and claim 4 and new claim 9 clearly structurally position the intermediate moisturizing unit/means to moisturize only one side of the web.

The difference between the claimed calender and the prior art cited by the examiner is:

1. The claimed calender has two calender stacks with an intermediate moisturizing unit/means positioned between the two calender stacks;
2. The calender stacks are composed of rigid-shell and resilient-shell rolls; and
3. reversing or guide members proceed the nips so that the web can be treated without everywhere wrapping the surfaces of the calender rolls.

Claims 1–9 have been amended to more clearly point out the forgoing differences, and to remove the indefiniteness pointed out by the examiner.

Fletcher and the *Veneman et al.* do not have nips formed between rigid and resilient rolls, and are without reversing or guide members so the web wraps against the surfaces of the rollers making up the calenders, and are thus structurally different for a calender capable of thermal/moisture gradient calendaring. *Taylor* shows only a single calender stack and does not show resilient backing rolls.

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Particular arrangements of calendaring rolls and calenders can spin straw into gold, making a paper web more valuable without adding any additional material. Thus a calender arrangement can be very economically valuable if it provides a new or better way of improving a paper web's properties. The invention is more than a rearrangement of parts or selection of the optimal range for operating a known apparatus. The examiner has not shown how a person of ordinary skill in the art would be motivated to combine the prior art to form the claimed apparatus, nor has the examiner shown an expectation contained within the prior art that applicant's claimed structure would be successful.

Applicant believes that no new matter has been added by this amendment.

Applicant submits that the claims, as amended, are in condition for allowance. Favorable action thereon is respectfully solicited.

Respectfully submitted,

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